



Next steps towards Standardized and Automated Ship Reporting

Theme

- IMO carries overall responsibility for development of Standardized and Automated Ship Reporting as a prioritized solution (SIP Solution #2) to streamline ship-board and shore-side reporting processes and procedures
- IMO is uniquely positioned to address the ship-board side of the solution
- IALA is well positioned to address the solution from a shore-based perspective and, in doing, so assist IMO with taking the **next step towards Standardized and Automated Reporting**

Agenda

1. Background
2. Solution Components
3. Expected Benefits
4. IALA's Role
5. Conclusion

1. Background

IALA's ENAV Committee Work Group 4 Work Program for 2012-2017:

“Develop Guideline/Recommendation on Maritime Service Portfolios”

- Operational User Requirements for MSP#8 “Vessel Shore Reporting Service” (and others)

Findings

1. Most shore-based authorities still require unique reports (>1000)
2. A few (quite expensive) ship reporting solutions are currently available
3. Few bridge teams currently use a ship reporting solution
4. Many other solutions proposed (i.e. National Single Windows)
5. Most assume that shore-based authorities will harmonize reporting requirements and accept electronic reports but progress is limited

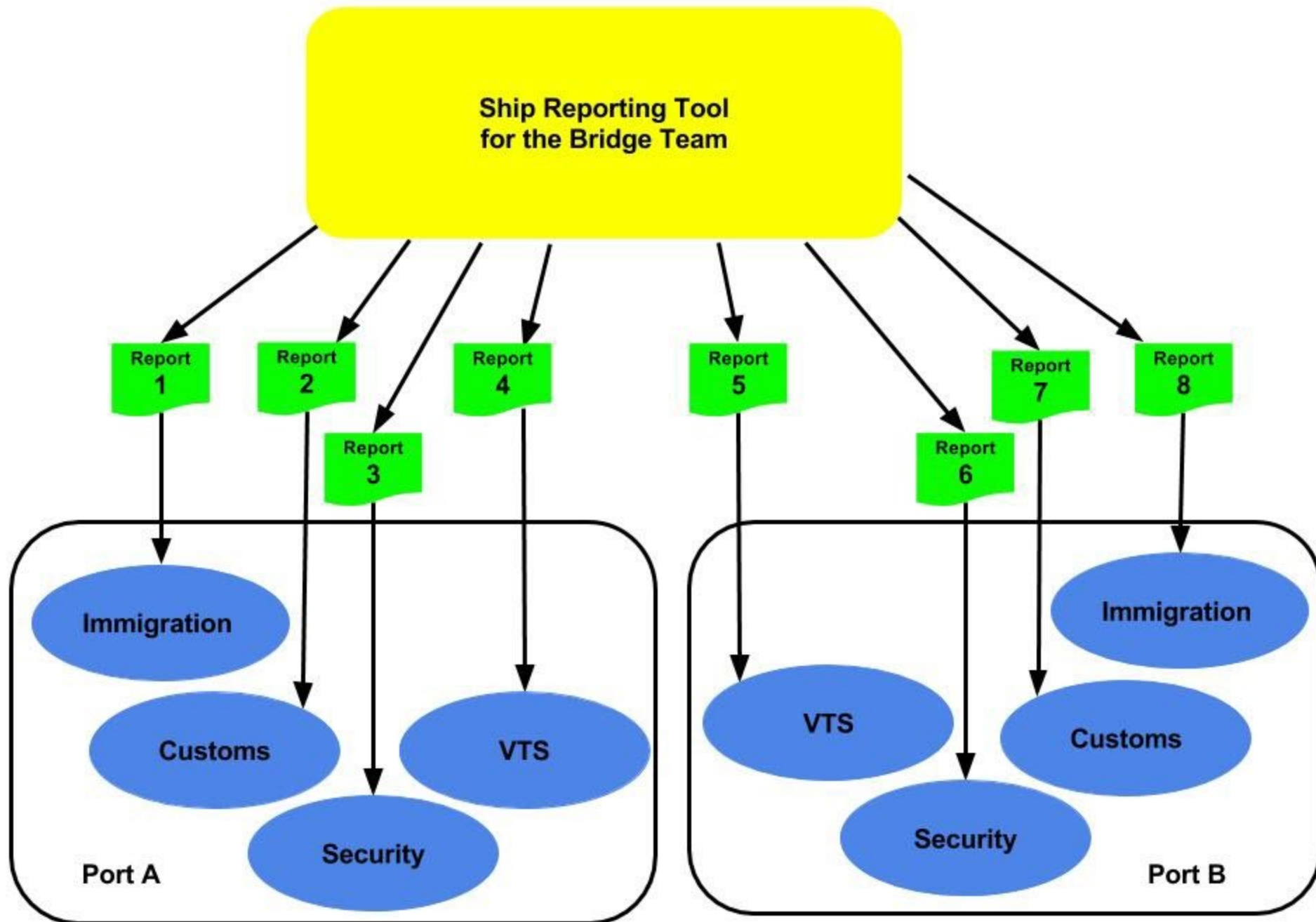
Findings (Cont'd)

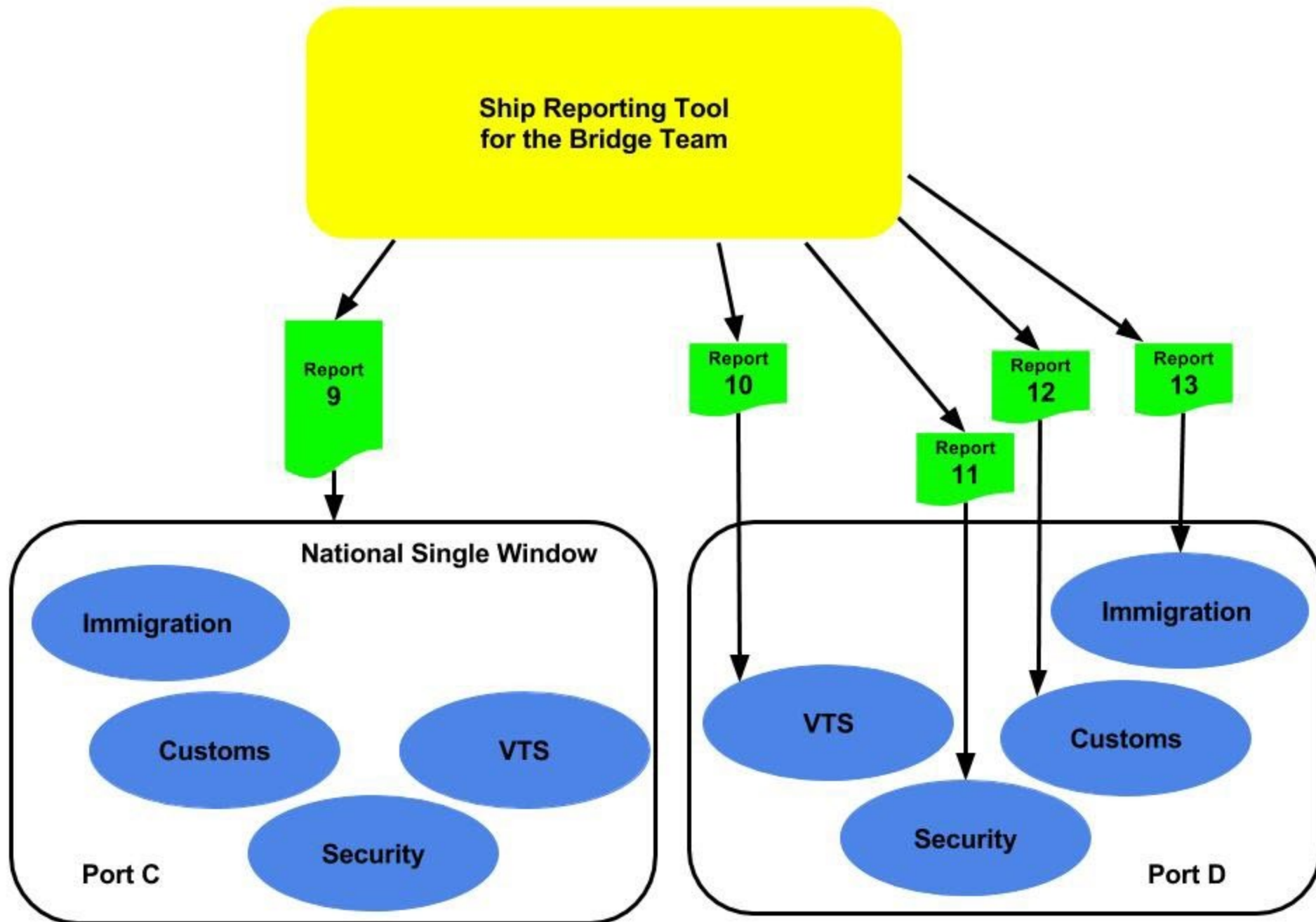
Solutions will not be effective and widely adopted unless

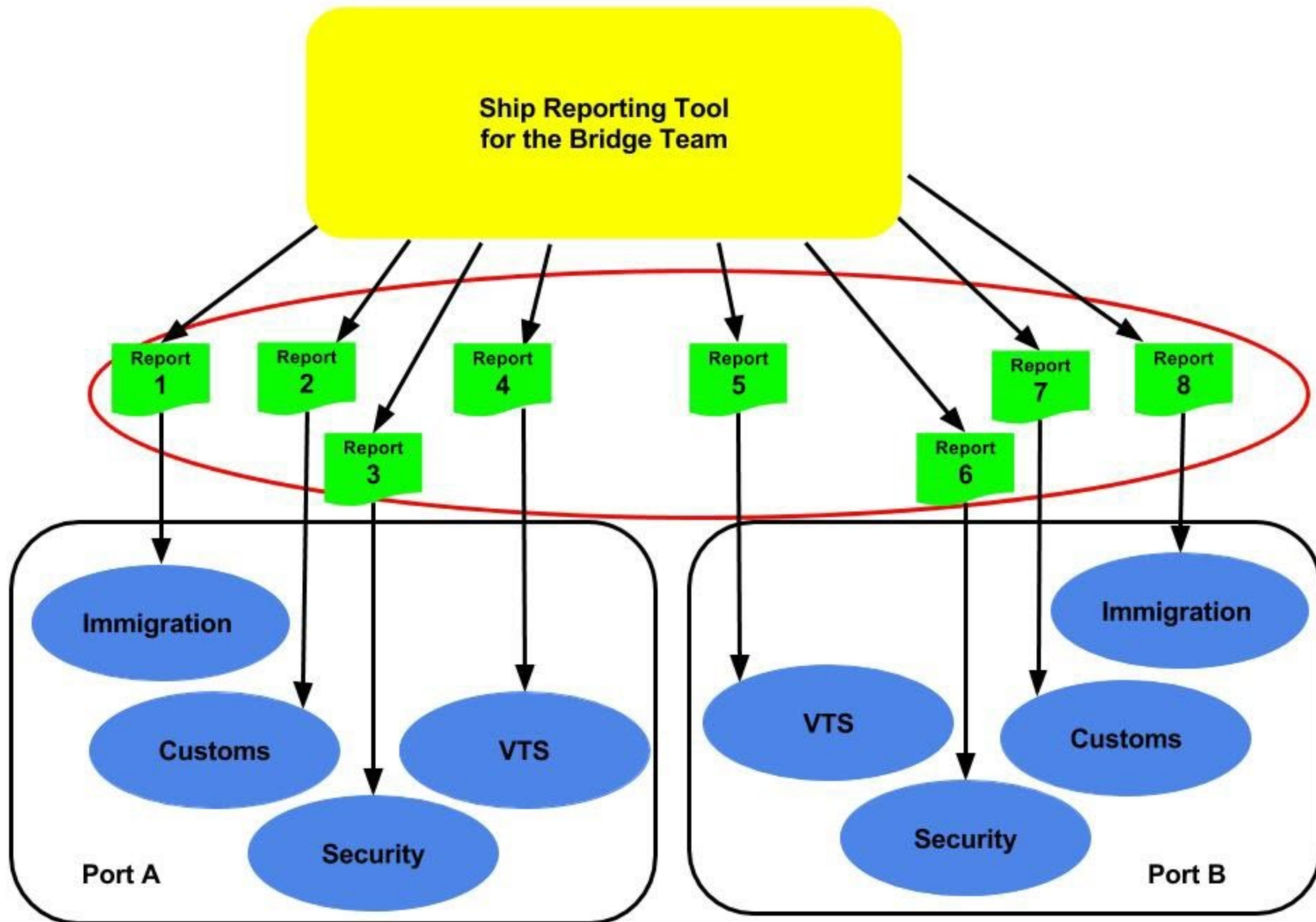
- Their cost is reduced
- They fulfill current shore-based authorities' reporting requirements including hard copy reports using their unique forms

To do so, the solution will need to include five distinct components:

1. Ship Report Registry
2. Cyber Security Infrastructure
3. Ship Report Collection Tools
4. Ship Reporting Tools for Bridge Teams
5. Common Ship Report Data Model







**Ship Reporting Tool
for the Bridge Team**

Report 1

Report 2

Report 3

Report 4

Report 5

Report 6

Report 7

Report 8

Immigration

Customs

VTS

Security

Port A

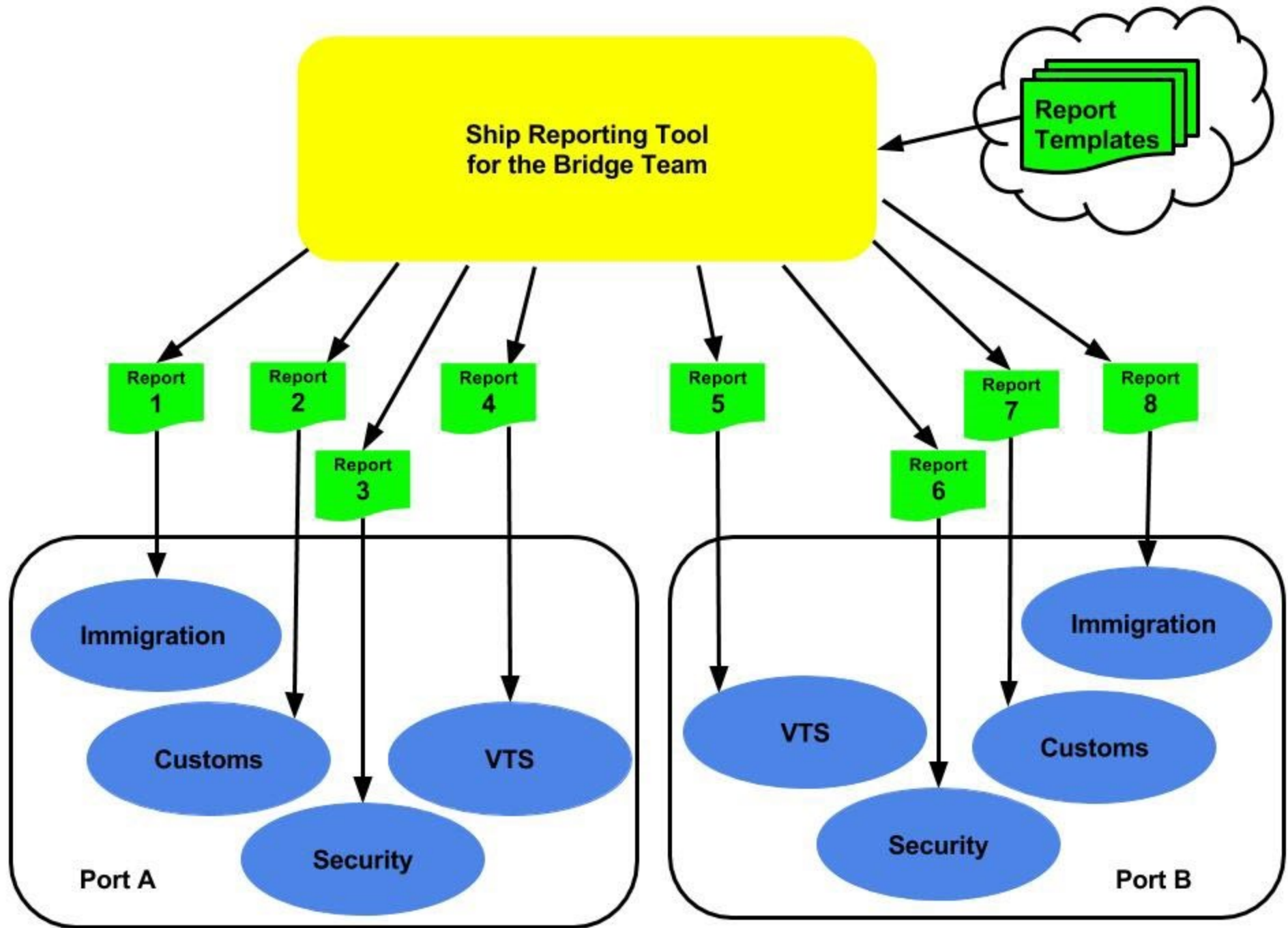
Immigration

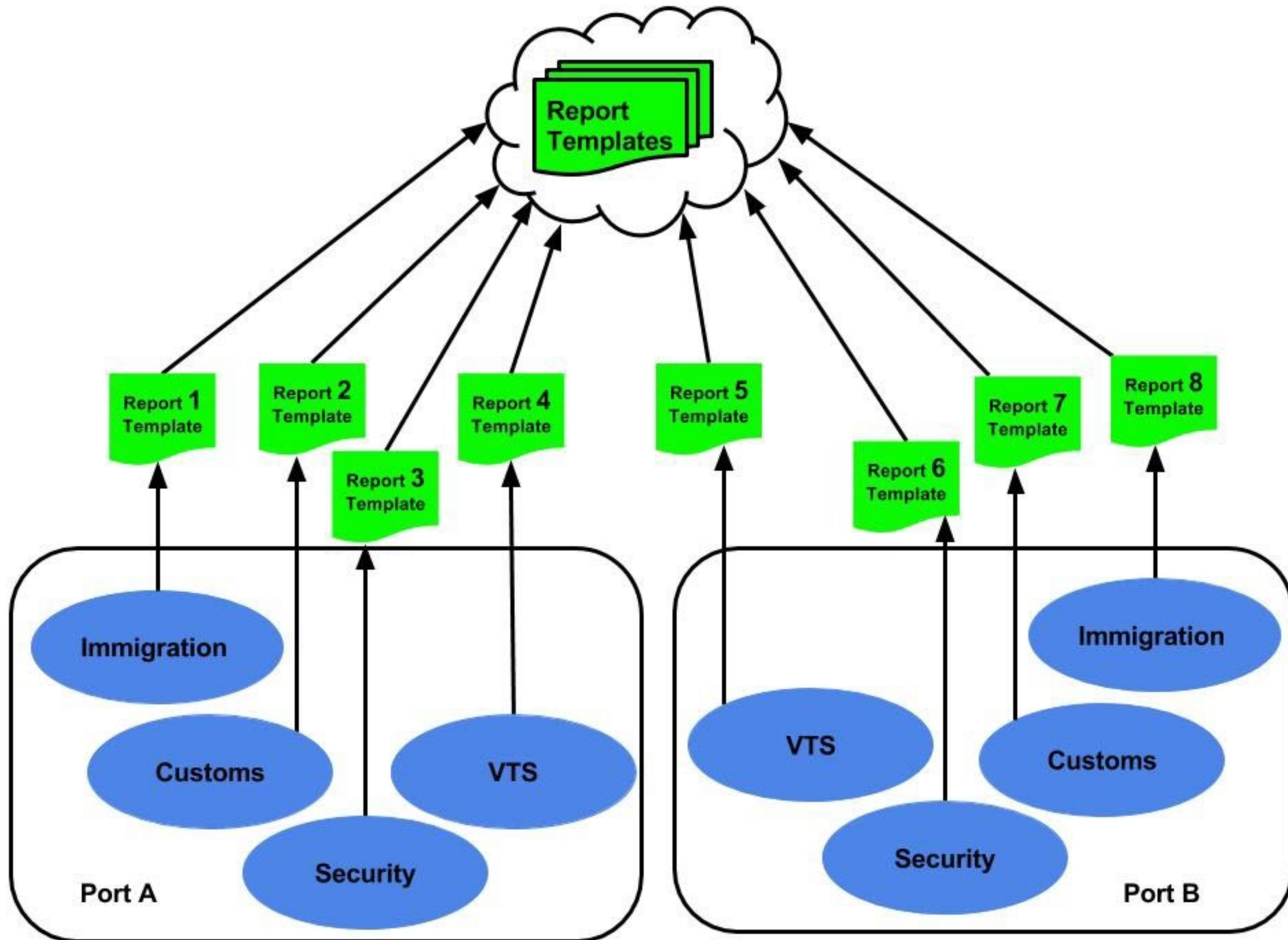
VTS

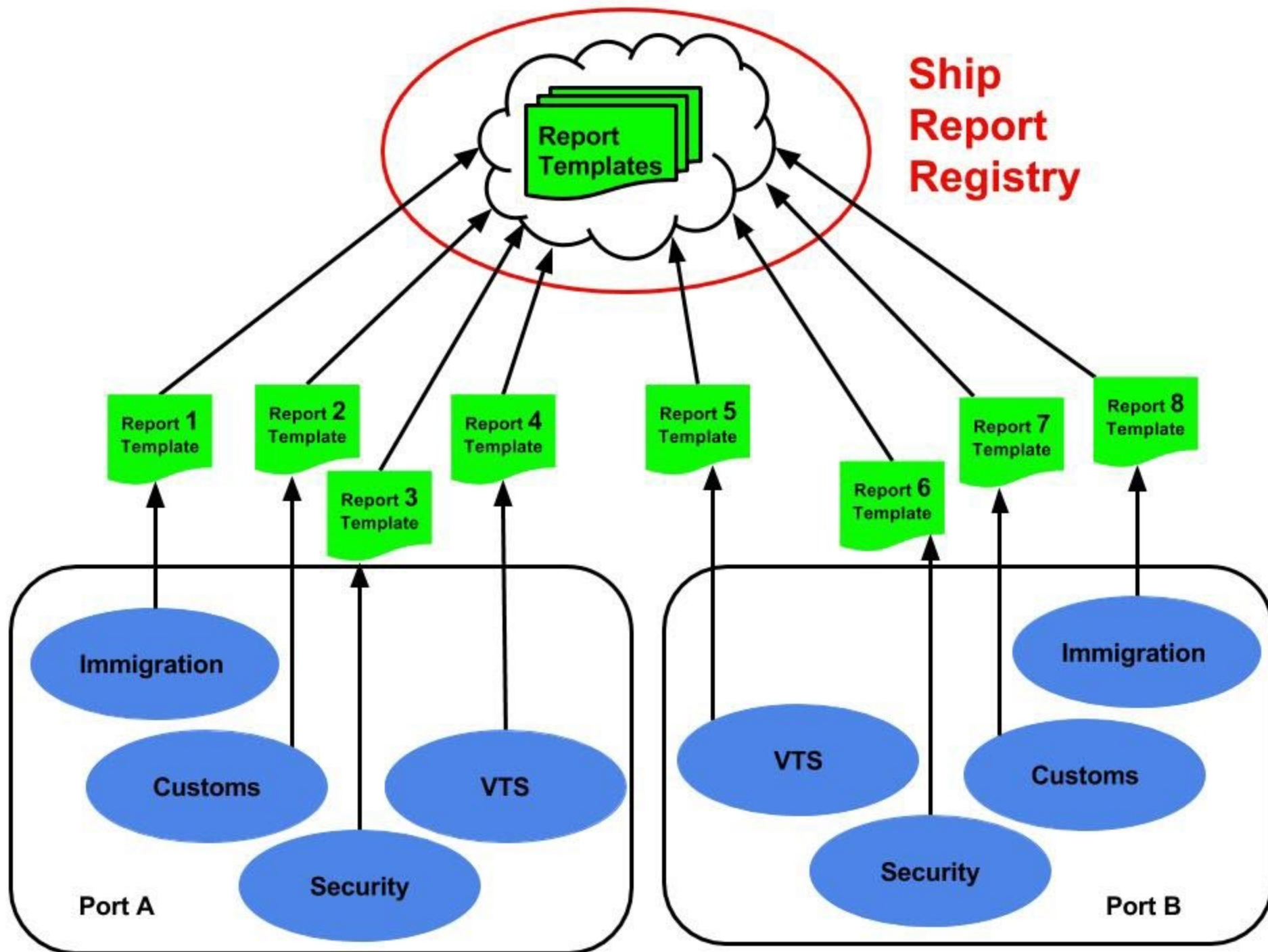
Security

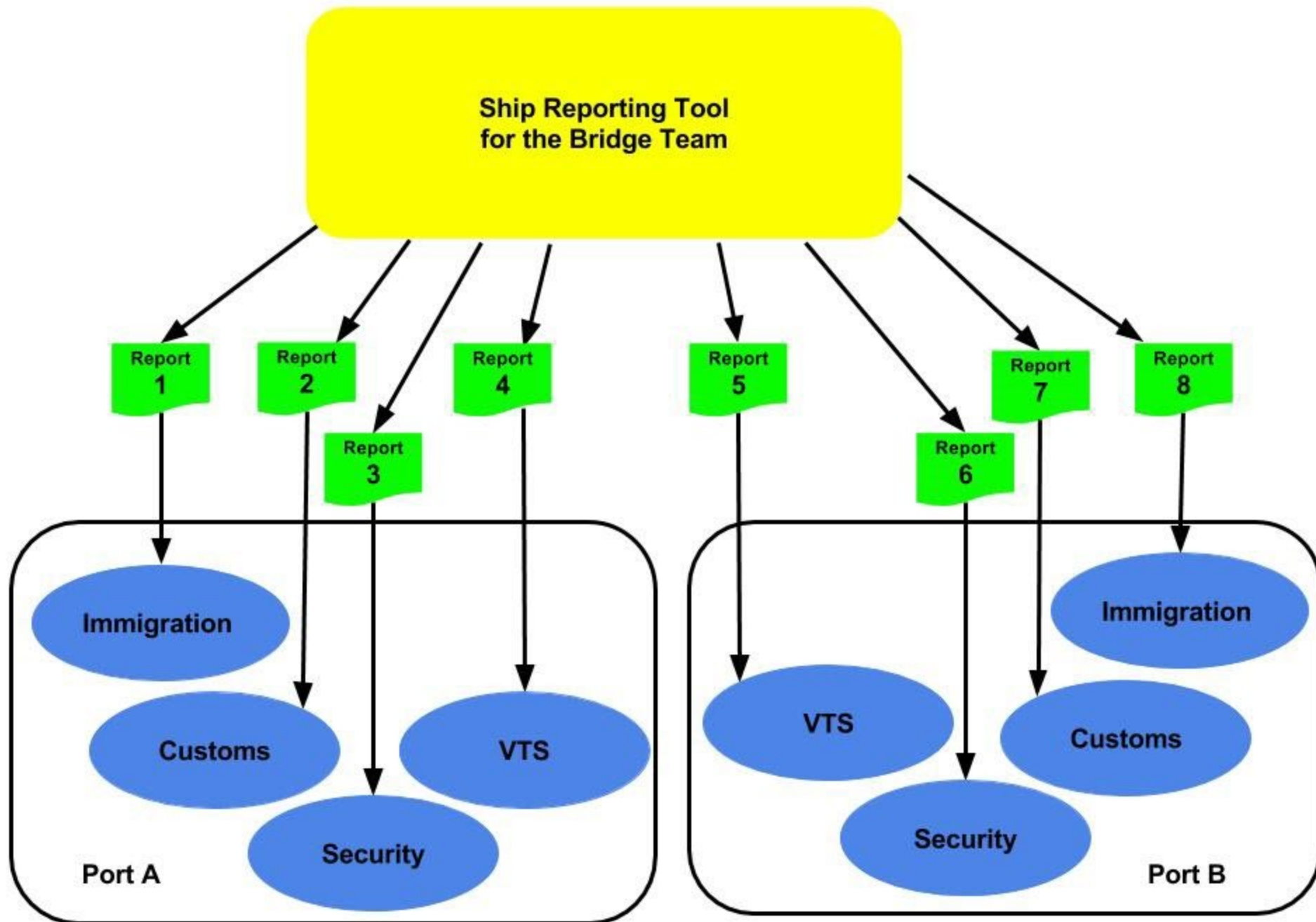
Customs

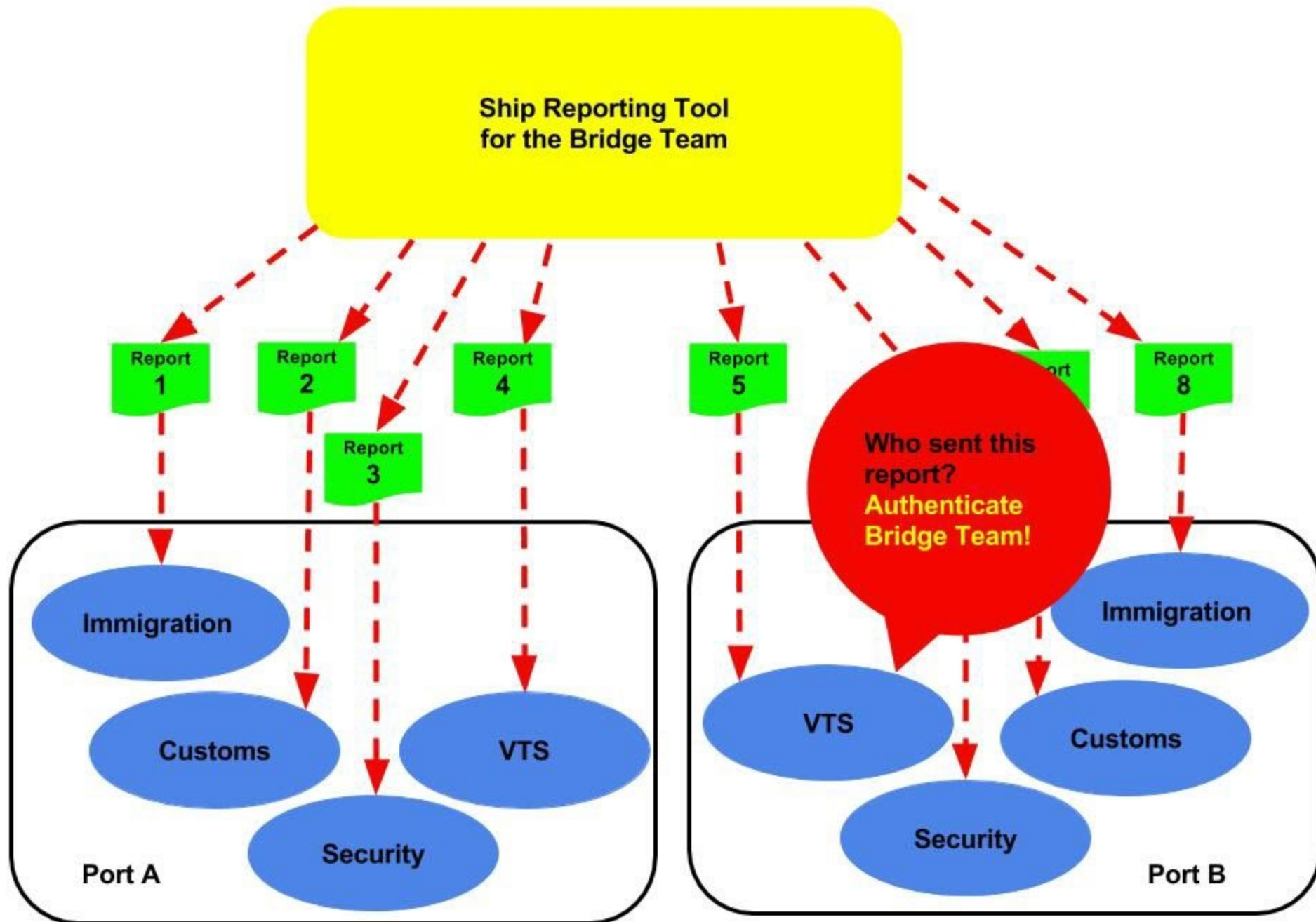
Port B











Ship Reporting Tool
for the Bridge Team

Report 1

Report 2

Report 3

Report 4

Report 5

Report 6

Report 7

Report 8

Immigration

Customs

VTS

Security

Port A

Who sent this
report?
Authenticate
Bridge Team!

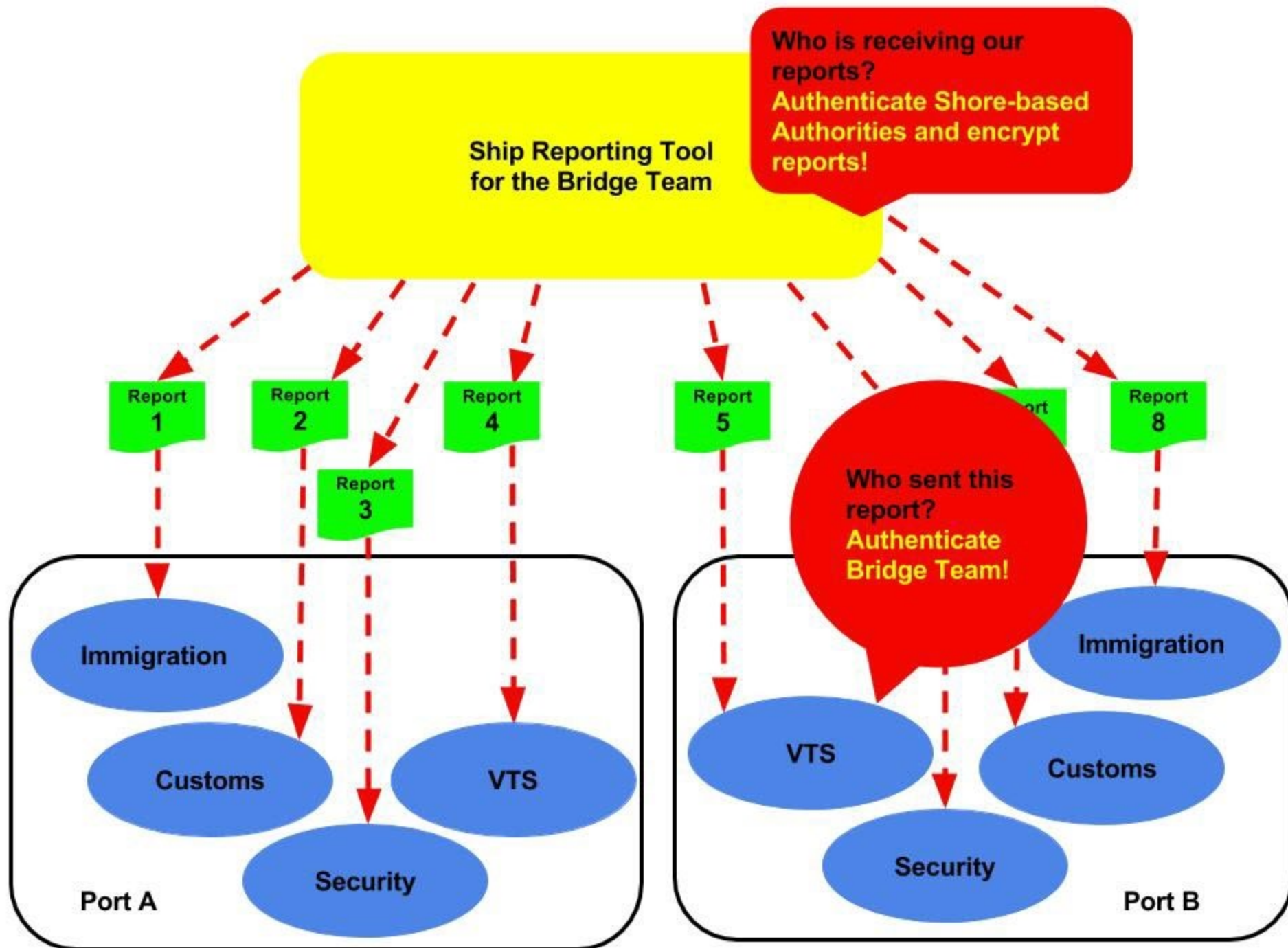
Immigration

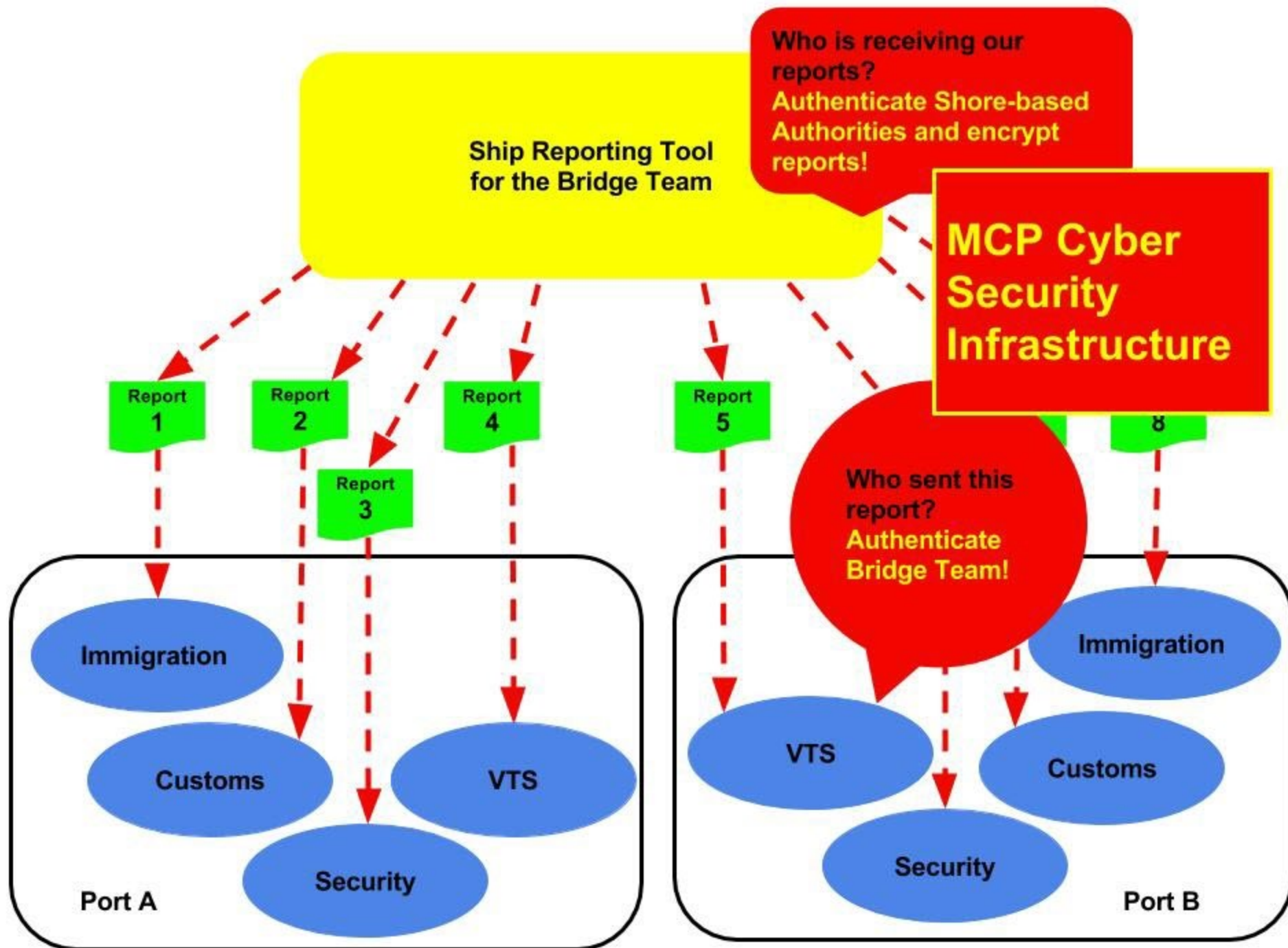
VTS

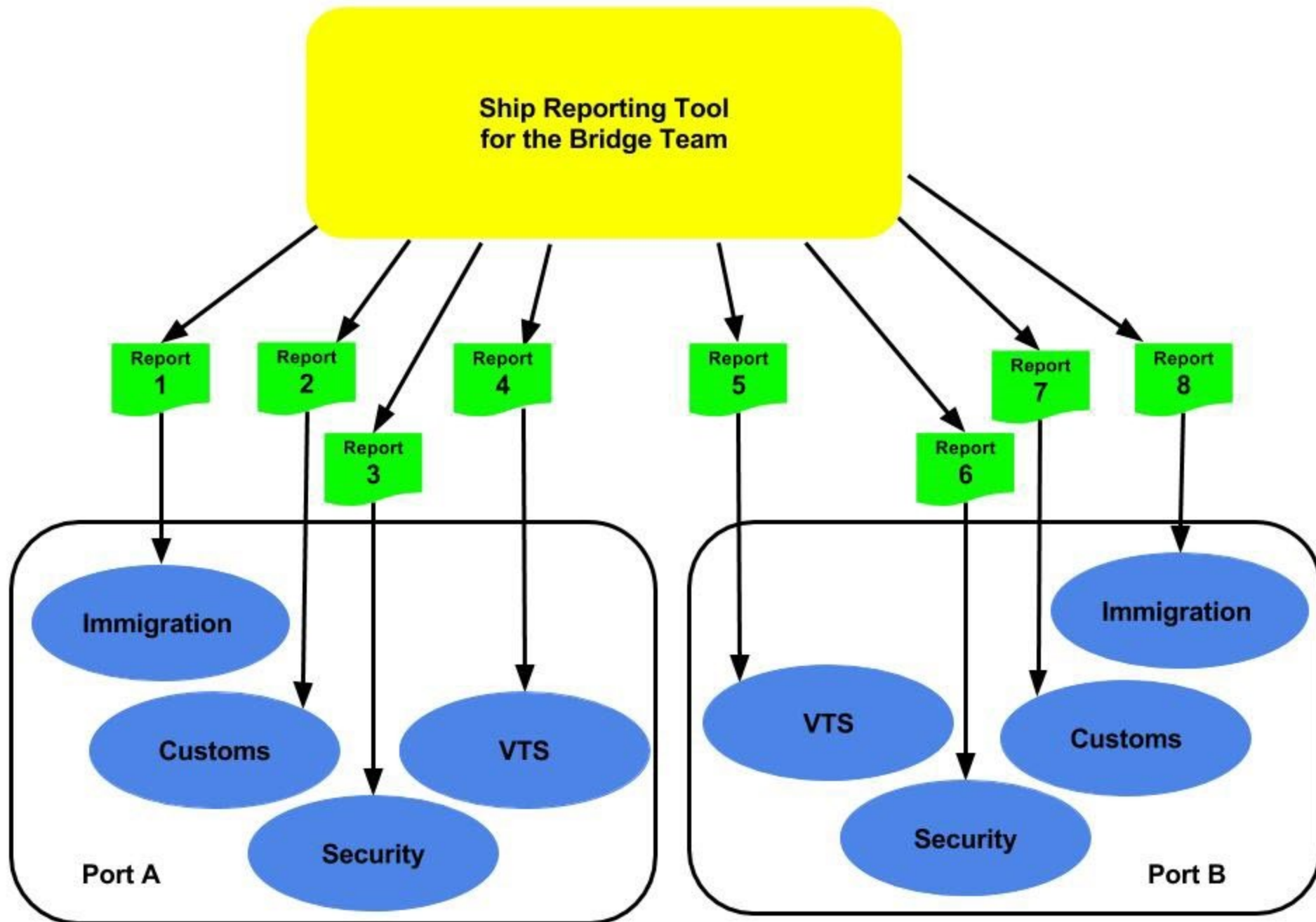
Customs

Security

Port B





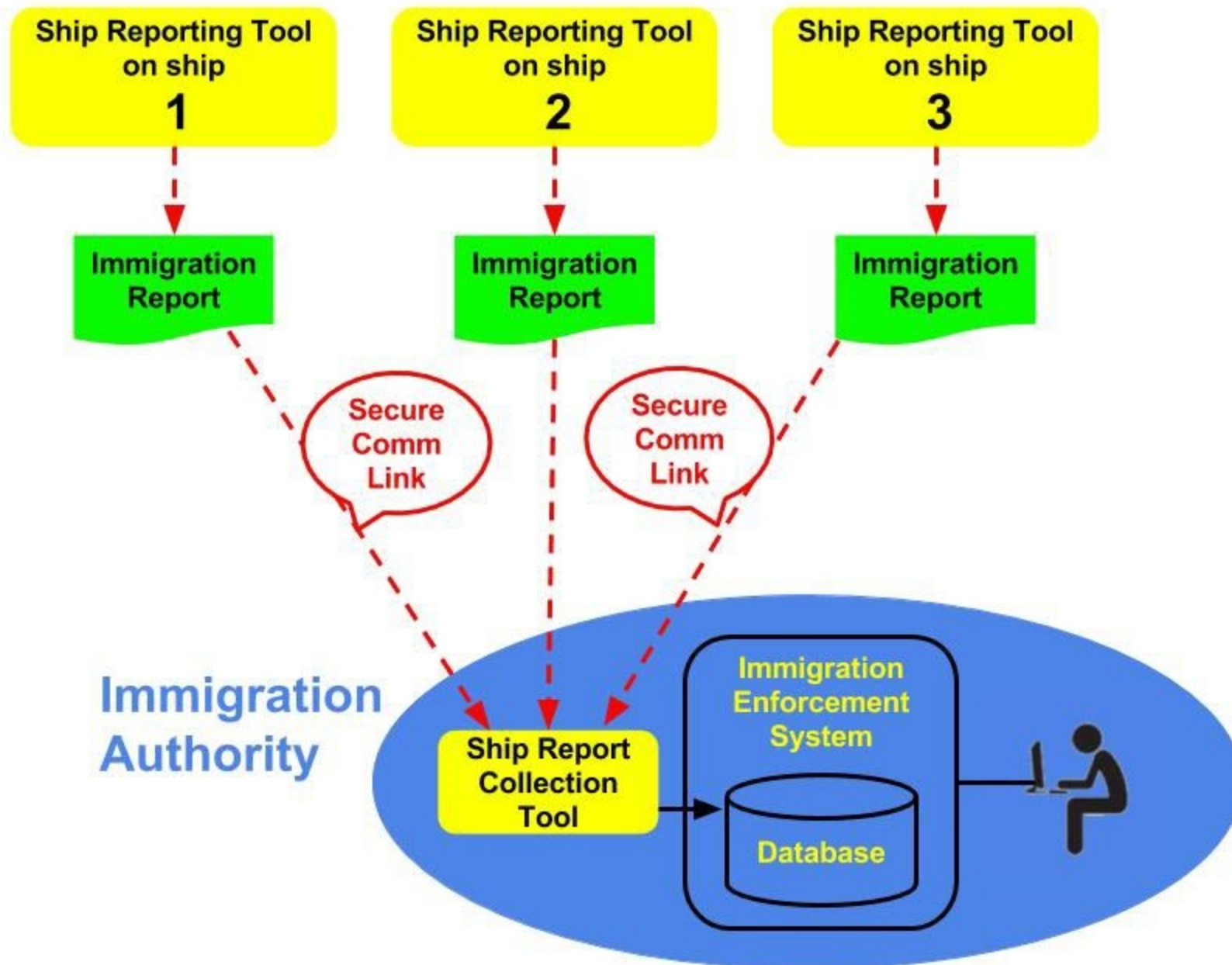


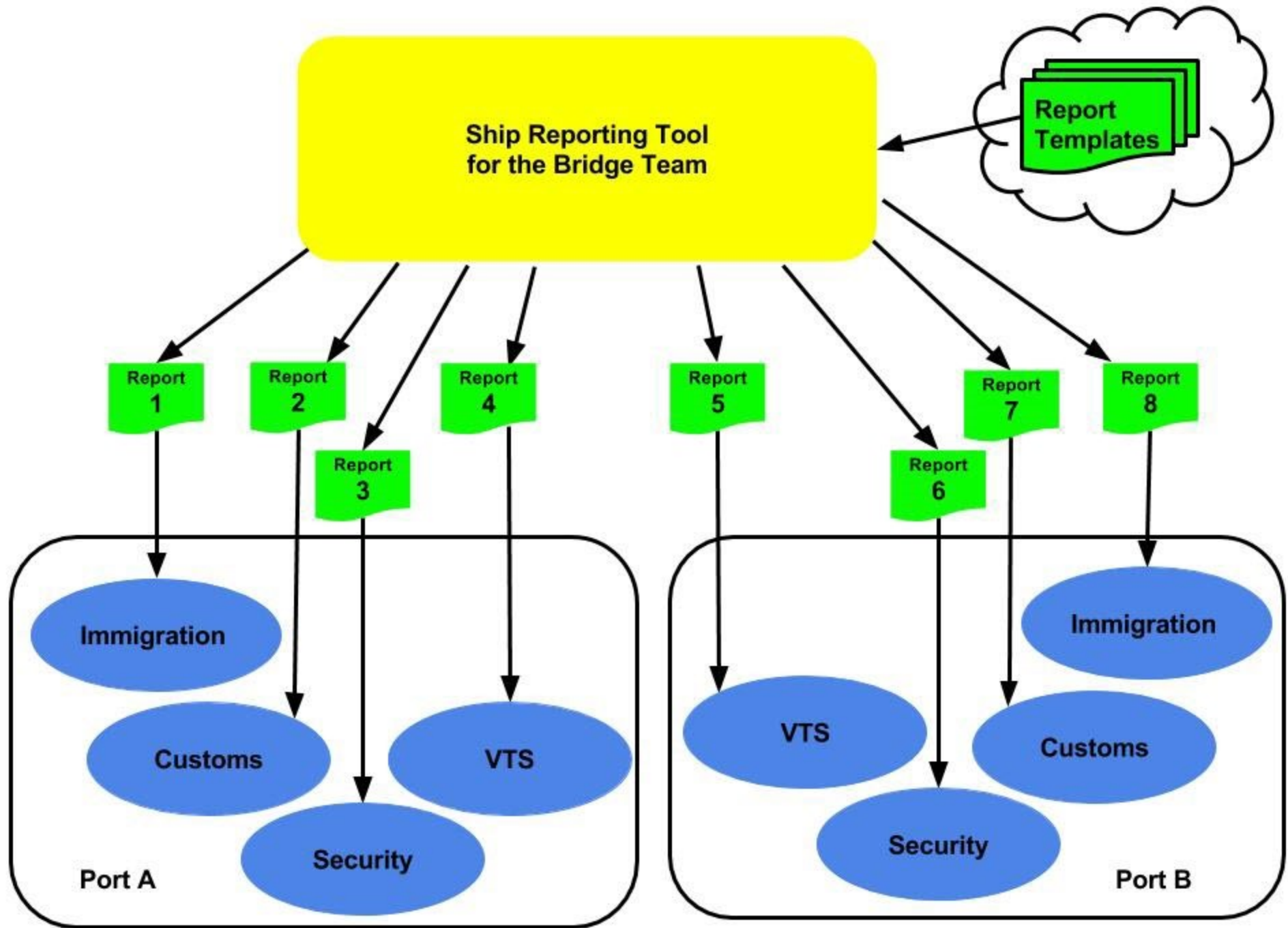
Ship Reporting Tool
for the Bridge Team

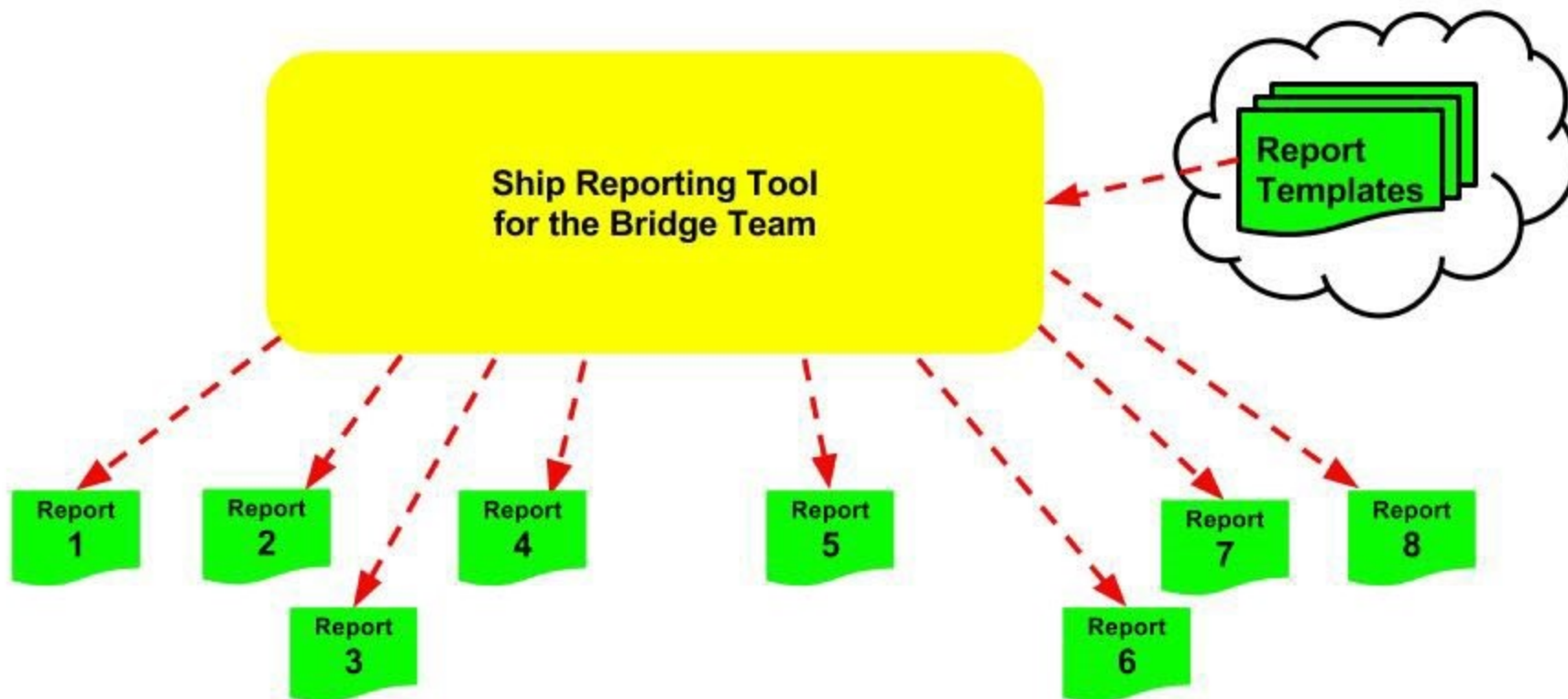
Report
1

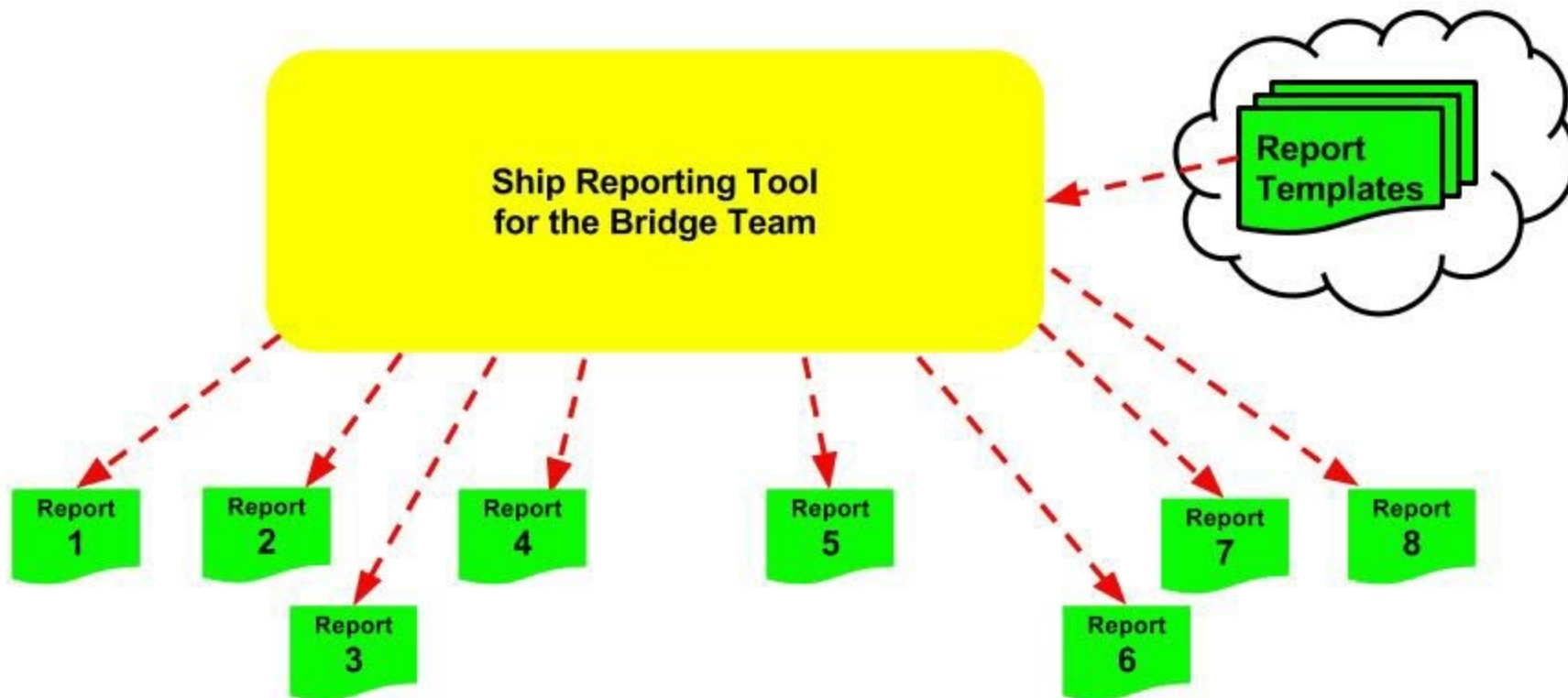
Immigration

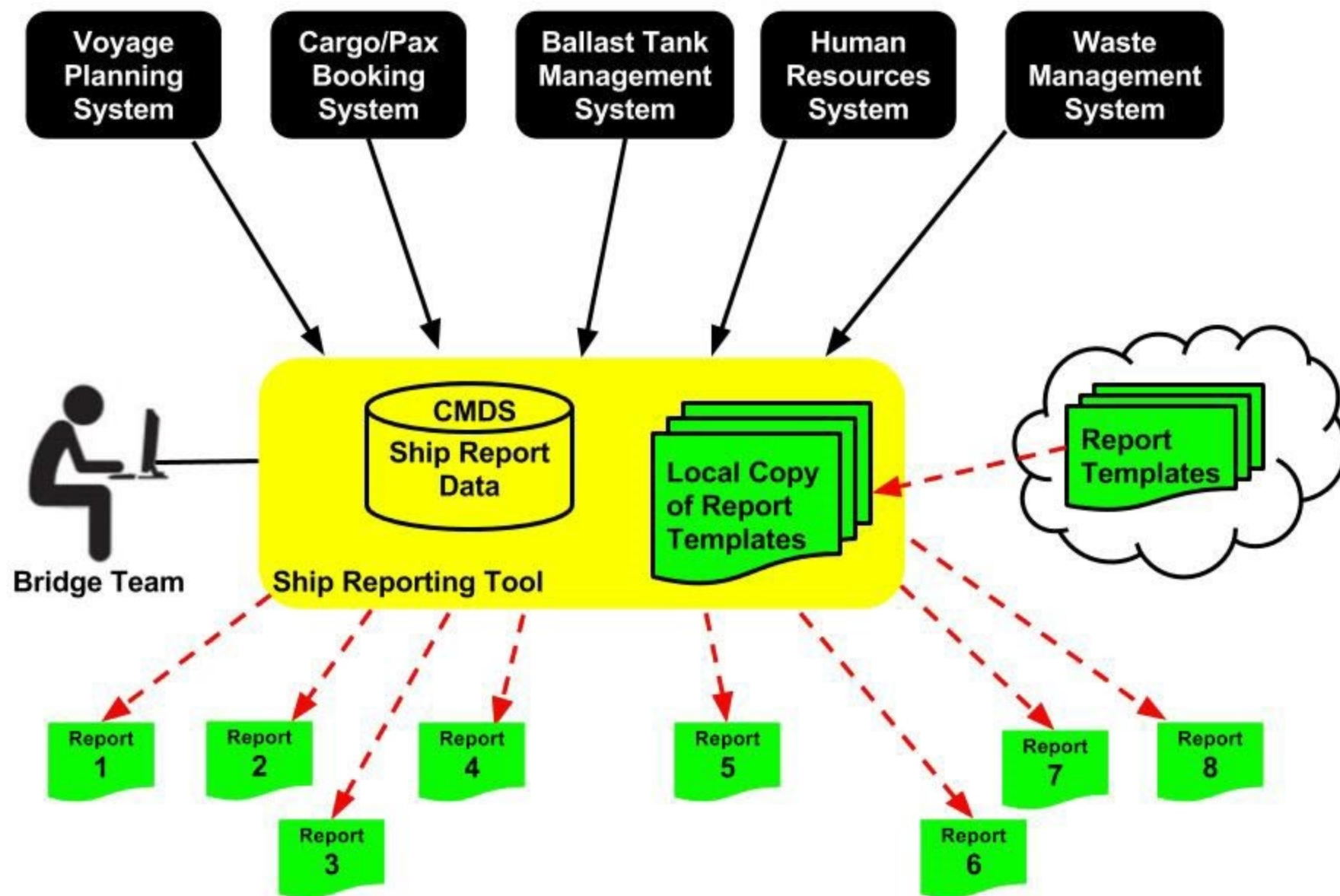
Port A



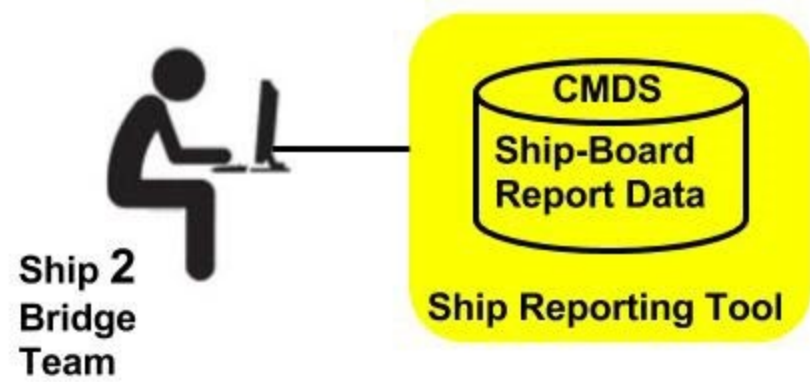


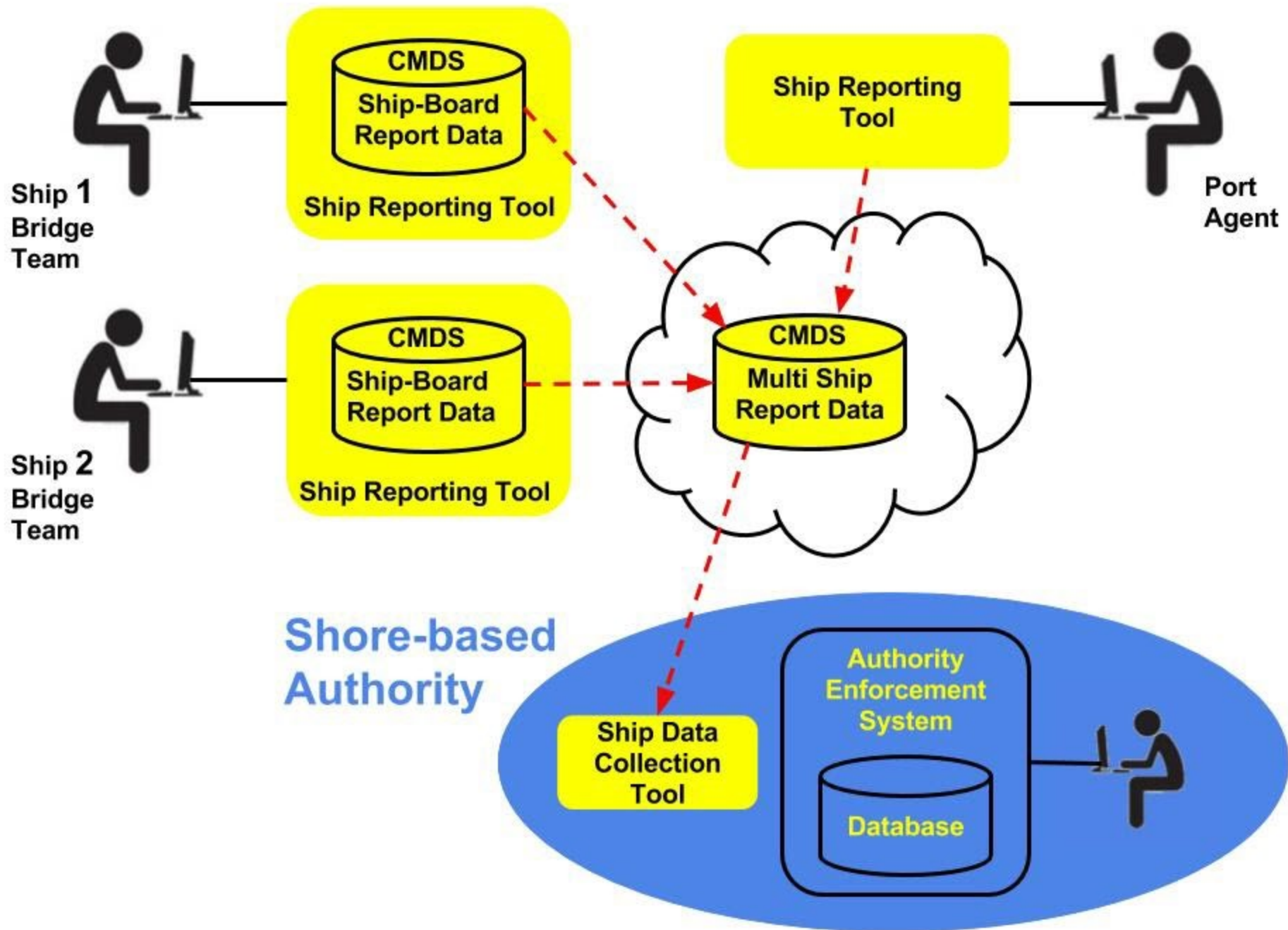












3. Expected Benefits



Ship Report Registry

- This is a High Priority Item
- Reduce Cost of Ship Reporting Tools
 - ✓ Obviates need for vendors to maintain a proprietary ship report registry
 - ✓ Without the Ship Report Registry, Ship Reporting Tools will remain too expensive for most ship owners/operators
- Will likely entice shore-based authorities to harmonize their ship reports
 - ✓ They will be able to see what reports their colleagues require
 - ✓ They will be assigned a security certificate to receive encrypted reports

3. Expected Benefits



Ship Report Registry

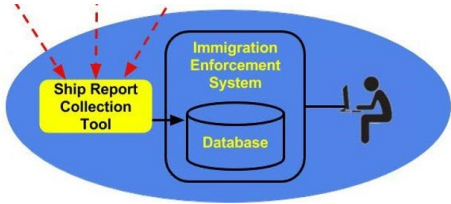
- This is a High Priority Item
- Reduce Cost of Ship Reporting Tools
 - ✓ Obviates need for vendors to maintain a proprietary ship report registry
 - ✓ Without the Ship Report Registry, Ship Reporting Tools will remain too expensive for most ship owners/operators
- Will likely entice shore-based authorities to harmonize their ship reports
 - ✓ They will be able to see what reports their colleagues require
 - ✓ They will be assigned a security certificate to receive encrypted reports

MCP Cyber
Security
Infrastructure

MCP Cyber Security Infrastructure

- Will allow shore-based authorities to authenticate report originators
- Will allow ship owners/operators to control access to their report information

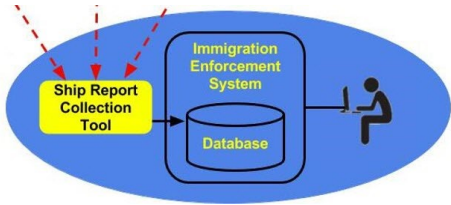
3. Expected Benefits (Cont'd)



Ship Report Collection Tools

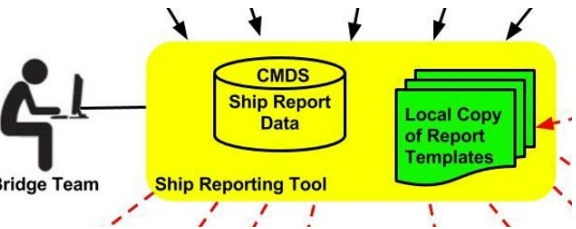
- Allows shore-based authorities to decrypt ship reports
- Allows shore-based authorities to automate data entry into their enforcement systems

3. Expected Benefits (Cont'd)



Ship Report Collection Tools

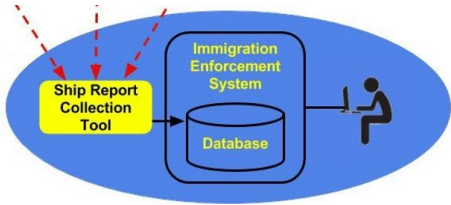
- Allows shore-based authorities to decrypt ship reports
- Allows shore-based authorities to automate data entry into their enforcement systems



Ship Reporting Tools for Bridge Teams

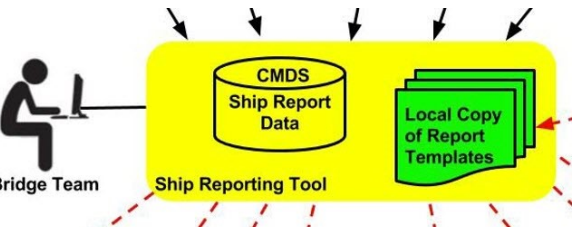
- Will minimize administrative burden on Bridge Teams
- Will allow Bridge Teams to encrypt their reports
- Will allow Bridge Teams to delegate ship reporting tasks

3. Expected Benefits (Cont'd)



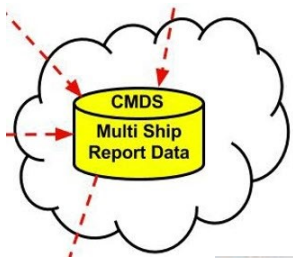
Ship Report Collection Tools

- Allows shore-based authorities to decrypt ship reports
- Allows shore-based authorities to automate data entry in their enforcement systems



Ship Reporting Tools for Bridge Teams

- Will minimize administrative burden on Bridge Teams
- Will allow Bridge Teams to encrypt their reports
- Will allow Bridge Teams to delegate ship reporting tasks



Common Ship Report Data Model (Part of CMDS)

- Will allow collaboration on ship reporting tools
 - ✓ CMDS Structure is independent of the tool used to generate reports
- Will allow shore-based authorities to subscribe to new reports published in CMDS



4. IALA's Role



Ship Report Registry

- Clearly in IALA's remit

4. IALA's Role



**MCP Cyber
Security
Infrastructure**

Ship Report Registry

- Clearly in IALA's remit

MCP Cyber Security Infrastructure

- IALA is Partner in EfficienSea2 and holds a Board Seat

4. IALA's Role



**MCP Cyber
Security
Infrastructure**

Ship Report Registry

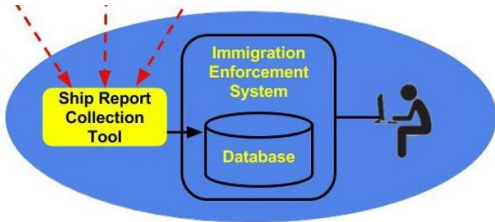
- Clearly in IALA's remit

MCP Cyber Security Infrastructure

- IALA is Partner in EfficienSea2 this and holds a Board Seat

Ship Report Collection Tools

- IALA National Members represent Shore-based Authorities



4. IALA's Role



MCP Cyber Security Infrastructure

Ship Report Registry

- Clearly in IALA's remit

MCP Cyber Security Infrastructure

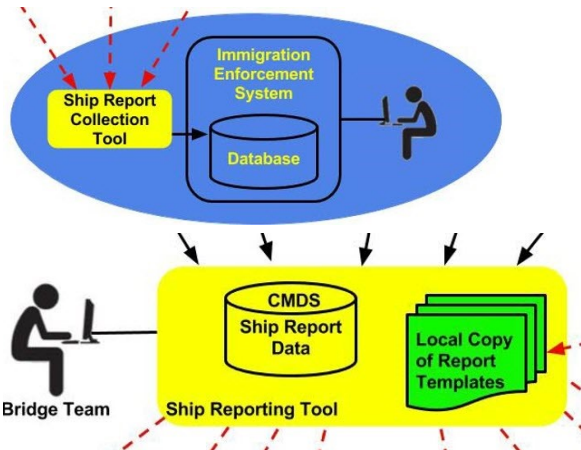
- IALA is Partner in EfficienSea2 this and holds a Board Seat

Ship Report Collection Tools

- IALA National Members represent Shore-based Authorities

Ship Reporting Tools for Bridge Teams

- IMO develops rules and regulations



4. IALA's Role



MCP Cyber Security Infrastructure

Ship Report Registry

- Clearly in IALA's remit

MCP Cyber Security Infrastructure

- IALA is Partner in EfficienSea2 and holds a Board Seat

Ship Report Collection Tools

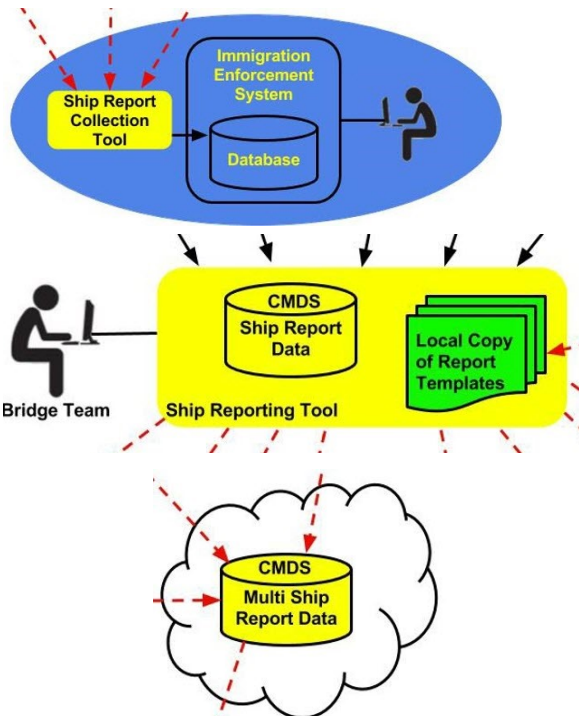
- IALA National Members represent Shore-based Authorities

Ship Reporting Tools for Bridge Teams

- IMO develops rules and regulations

Common Ship Report Data Model (Part of CMDS)

- In IALA's remit. Closely related to Ship Report Registry



5. Conclusion

The IALA Council is invited to consider addressing the shore-based aspects of the Vessel Shore Reporting Service in the ENAV Committee 2018-2022 Work Program to assist IMO with taking the **next step towards Standardized and Automated Reporting**

6. Questions?

Please feel free to contact me....

Fred W. Pot

Principal

Marine Management Consulting

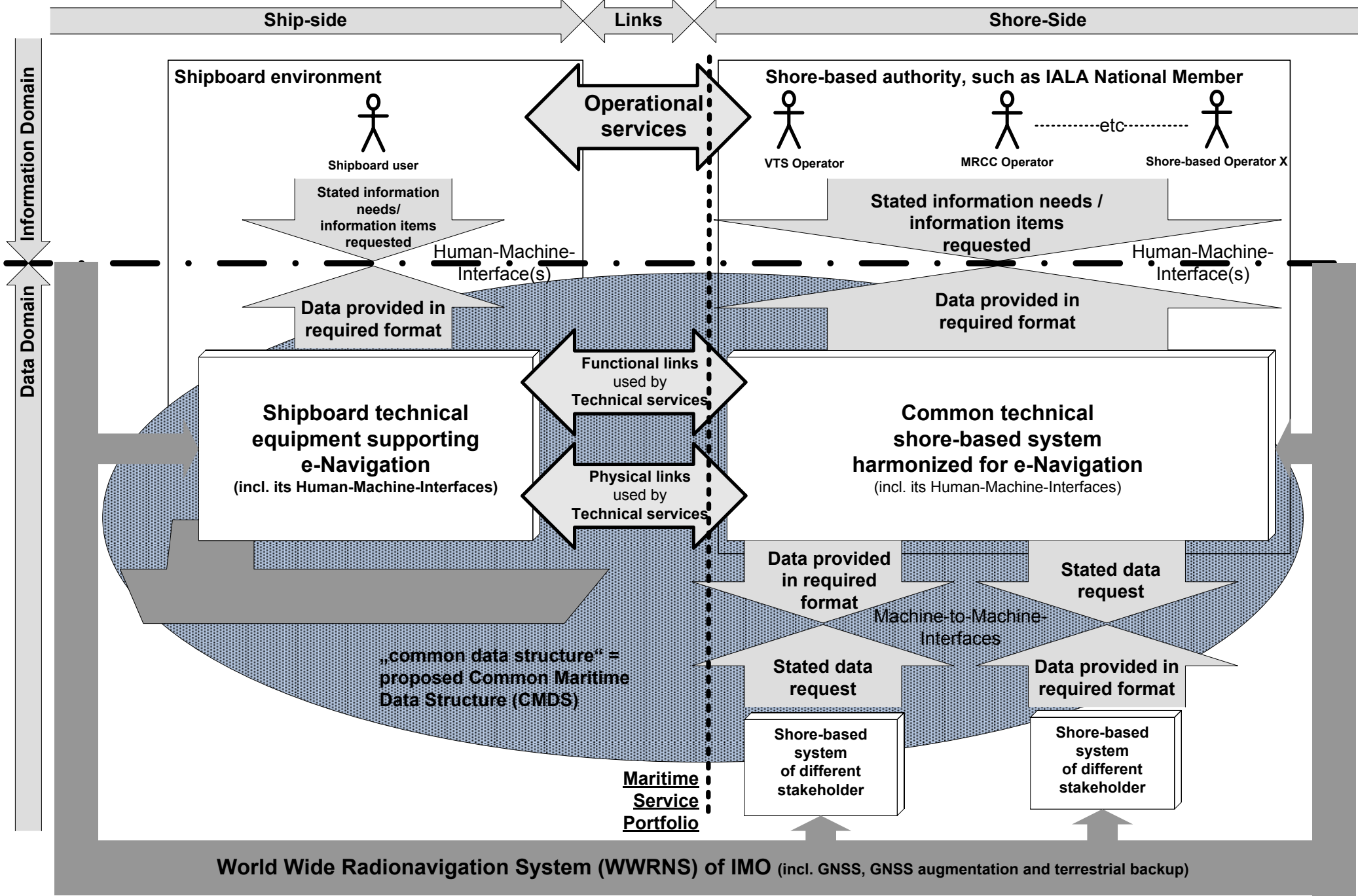
An e-Navigation Consultancy

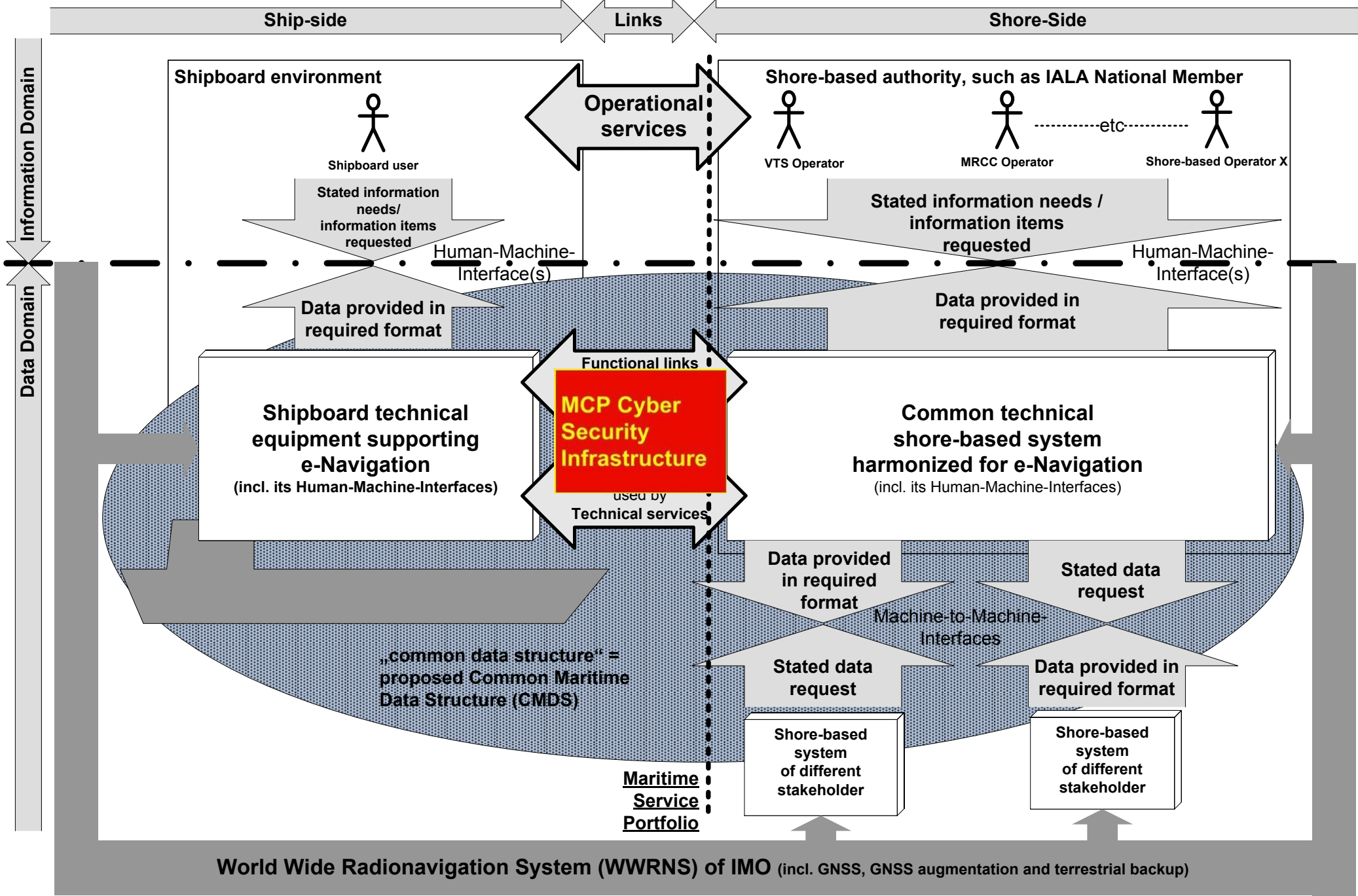
6716 47th Place SW

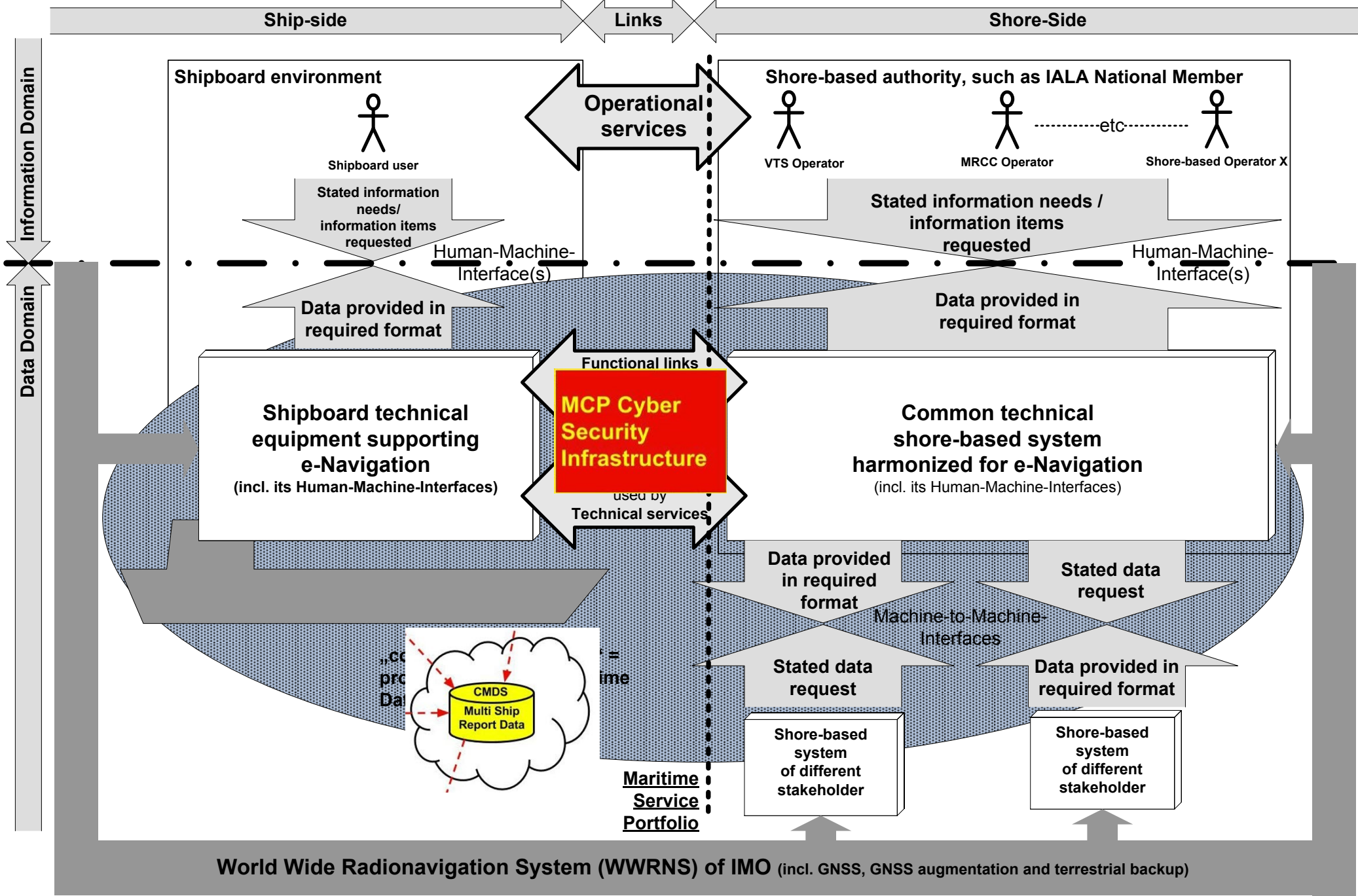
Seattle, WA 98136, USA

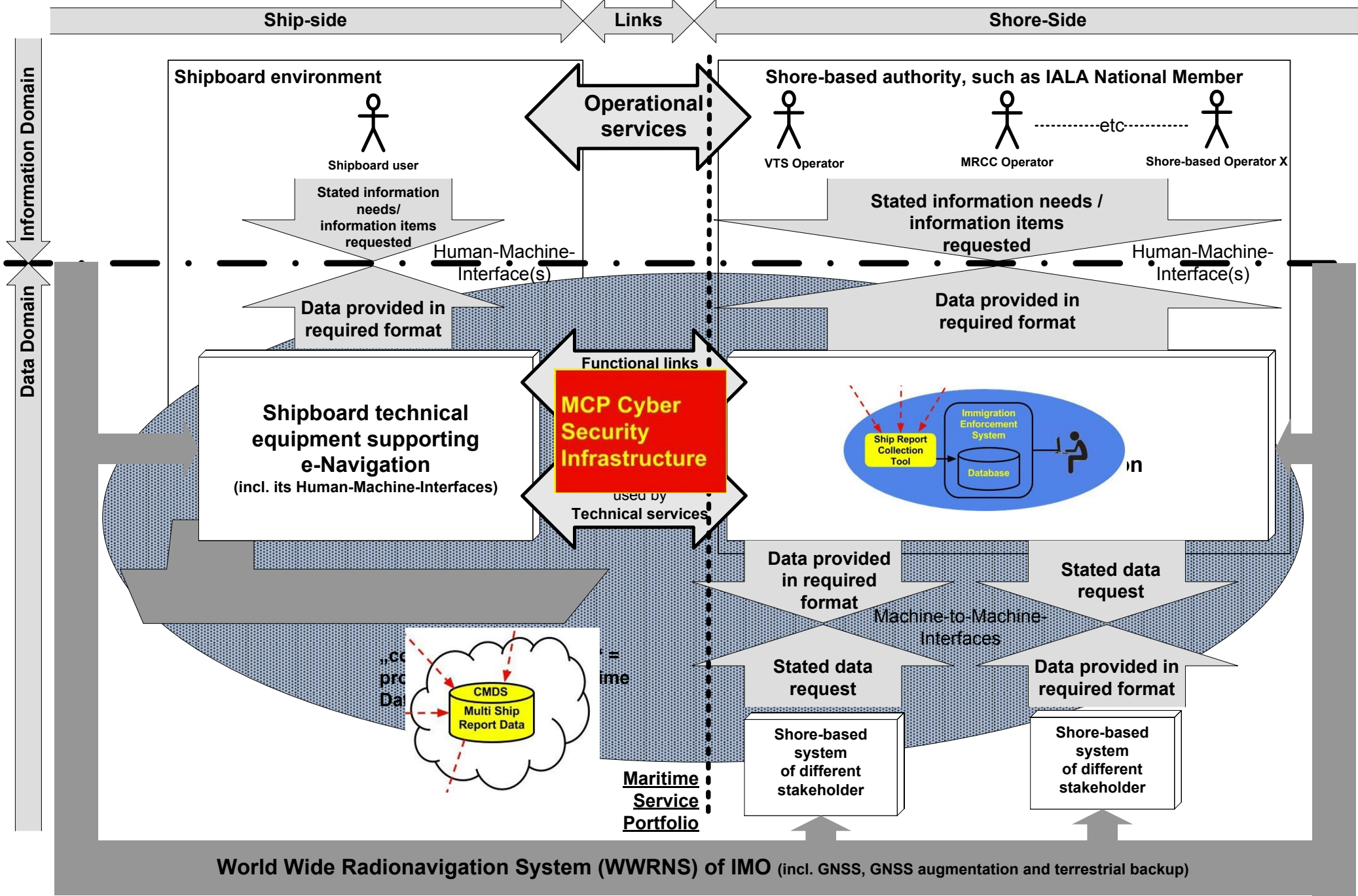
+1-206-850-7664 Mobile

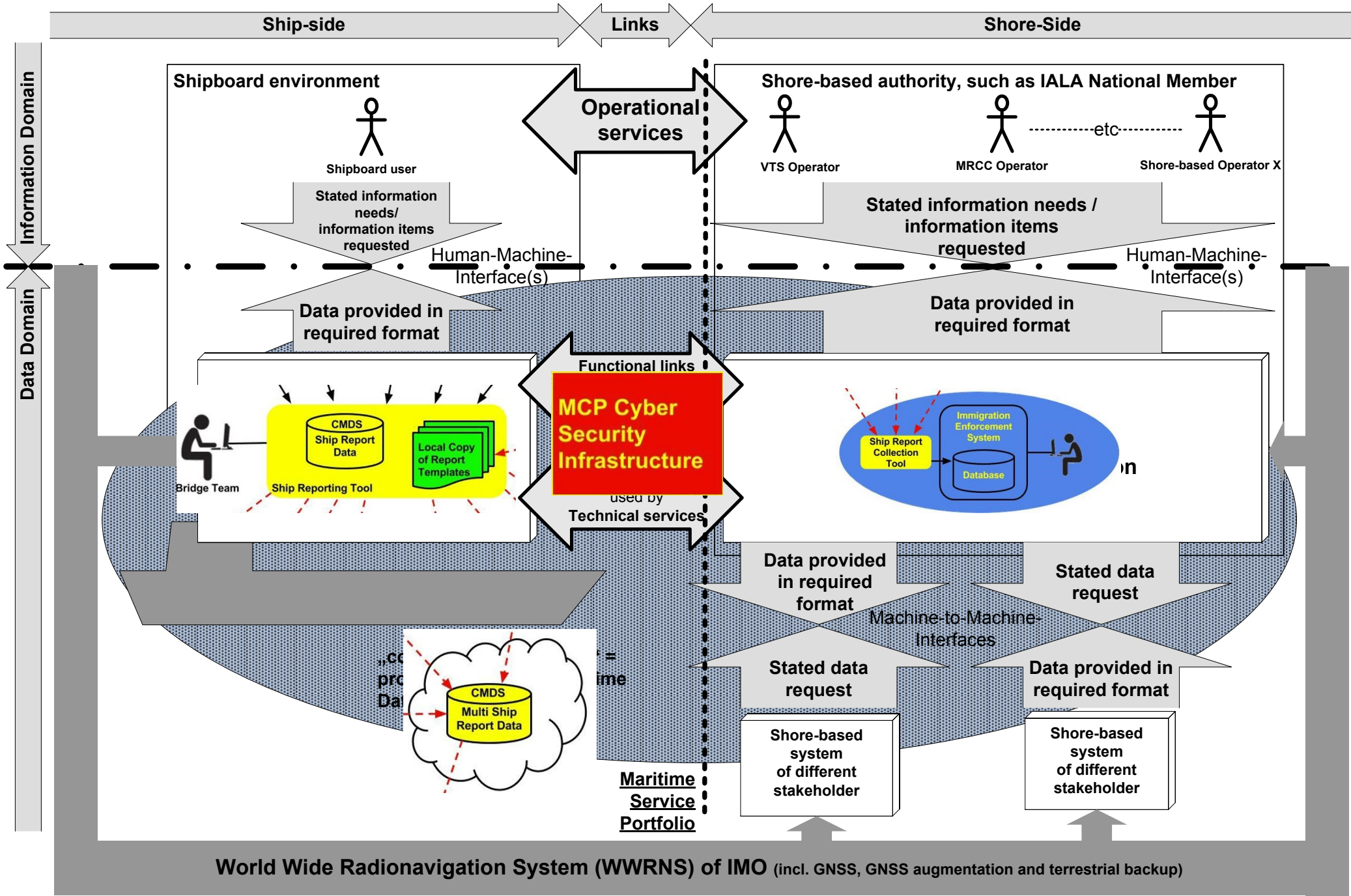
fpot@enavsolutions.org











World Wide Radionavigation System (WWRNS) of IMO (incl. GNSS, GNSS augmentation and terrestrial backup)

Automate Ship Reporting to Authorities

